

Listing of Claims:

1. (currently amended) A system for interfacing with an on-board diagnostic computer in a vehicle, wherein the on-board diagnostic computer is configured to monitor a set of operational characteristics of the vehicle, the system comprising:

a wireless appliance which during use communicates with the vehicle's on-board diagnostic computer, said wireless appliance comprising (i) a wireless communication component and (ii) a data-collection component,

said wireless communication component configured to wirelessly receive a schema identifying a subset of the set of operational characteristics that are monitored by the on-board diagnostic computer,

said data-collection component configured to process the received schema and to collect from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema,

said wireless communication component being further configured to wirelessly transmit said collected data,

wherein the schema identifies an address of an operational characteristic for which data is to be collected from the vehicle's on-board diagnostic computer,

wherein the schema includes a field that describes a time or frequency for querying at ~~which the data-collection component queries~~ the vehicle's on-board diagnostic computer by the data-collection component,

wherein the operational characteristics include at least one of the following: diagnostic

trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system,

wherein the wireless appliance is configured to send an outgoing data packet that indicates a vehicle's location,

wherein the data-collection component is configured to repeatedly collect said data from the vehicle's on-board diagnostic computer at times determined by a first schedule specified in the schema, and

wherein the wireless communication component is configured to repeatedly wirelessly transmit the collected data at times determined by a second schedule specified in the schema.

2. (currently amended) A system for interfacing with an on-board diagnostic computer in a vehicle, wherein the on-board diagnostic computer is configured to monitor a set of operational characteristics of the vehicle, the system comprising:

a wireless appliance which during use communicates with the vehicle's on-board diagnostic computer, said wireless appliance comprising (i) a wireless communication component and (ii) a data-collection component,

said wireless communication component configured to wirelessly receive a schema identifying a subset of the set of operational characteristics that are monitored by the on-board diagnostic computer,

said data-collection component configured to process the received schema and to collect from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema, and

said wireless communication component being further configured to wirelessly transmit said collected data,

wherein the schema includes a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer by the data-collection component.

3. (previously presented) The system of claim 2, wherein the schema identifies an address of an operational characteristic for which data is to be collected from the vehicle's on-board diagnostic computer.

4. (previously presented) The system of claim 2, wherein the schema comprises an address that describes a location of a diagnostic datum in a computer memory in the vehicle.

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6. (previously presented) The system of claim 2, wherein the schema comprises a field that describes a time or frequency at which the data-transmission component transmits data.

7. (previously presented) The system of claim 2, wherein the schema is an ASCII or binary data file.

8. (previously presented) The system of claim 2, wherein the operational characteristics include at least one of the following: diagnostic trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

9. (previously presented) The system of claim 2, wherein the wireless appliance is configured to send an outgoing data packet that indicates a vehicle's location.

10. (previously presented) The system of claim 2, wherein the vehicle is selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

11. (previously presented) The system of claim 2, wherein the data-collection component is configured to repeatedly collect said data from the vehicle's on-board diagnostic computer at times determined by a first schedule.

12. (previously presented) The system of claim 11, wherein the first schedule is specified in the schema.

13. (previously presented) The system of claim 2, wherein the wireless communication component is configured to repeatedly wirelessly transmit the collected data at times determined by a first schedule.

14. (previously presented) The system of claim 13, wherein the first schedule is specified in the schema.

15. (currently amended) A system for monitoring a set of vehicles, comprising:

a host computer configured to host a web site that receives operational characteristics transmitted wirelessly from the set of vehicles,

wherein the host computer is configured to wirelessly transmit a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer located in each of the set of vehicles, wherein the schema comprises a field that describes a time or frequency for querying each vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema,

said web site programmed to display on a first web interface queried operational characteristics of a single vehicle selected from among said set of vehicles,

said web site programmed to also display on a second web interface queried operational characteristics of multiple vehicles among said set of vehicles,

wherein said multiple vehicles are associated with a single entity.,~~and~~

~~wherein the host computer is configured to wirelessly transmit a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer of a target vehicle.~~

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17. (previously presented) The system of claim 15, wherein the web site includes a schema selector to select the schema to be transmitted.

18. (previously presented) The system of claim 15, wherein the first web interface comprises a first web page that displays a vehicle diagnostic datum.

19. (previously presented) The system of claim 18, wherein the first web page comprises data fields describing: (i) a name of a diagnostic datum; (ii) units corresponding to the diagnostic datum; and (iii) a numerical value corresponding to the diagnostic datum.

20. (previously presented) The system of claim 19, wherein the first web page further comprises multiple sets of diagnostic data associated with the single vehicle.

21. (previously presented) The system of claim 18, wherein the first web page includes a graphical representation of a set of diagnostic data.

22. (previously presented) The system of claim 15, wherein the web site further comprises a database component.

23. (previously presented) The system of claim 15, wherein the web site further comprises a login web page programmed to accept user name and password inputs of a user.

24. (previously presented) The system of claim 23, wherein the web site is configured to determine whether the user is associated with the first or second web interface.

25. (previously presented) The system of claim 15, wherein the multiple vehicles are each associated with a single user.

26. (previously presented) The system of claim 15, wherein the web site is configured to be displayed on a hand-held device.

27. (previously presented) The system of claim 26, wherein the hand-held device comprises a cellular telephone, computer, or personal digital assistant (PDA).

28. (previously presented) The system of claim 15, wherein the host computer is further configured to send an electronic communication including at least a portion of the operational characteristics of the single vehicle or multiple vehicles.

29. (previously presented) The system of claim 15, wherein the host computer is further configured to analyze a location of the single vehicle and display the location on at least one map.

30. (previously presented) The system of claim 15, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

31. (previously presented) The system of claim 15, wherein the set of vehicles includes a fleet of vehicles.

32. (currently amended) A system for monitoring a set of vehicles, comprising:

a host computer configured to host a web site that receives operational characteristics transmitted wirelessly from the set of vehicles,

said web site programmed to display on a first web interface operational characteristics of a single vehicle selected from among said set of vehicles,

said web site programmed to also display on a second web interface operational characteristics of multiple vehicles among said set of vehicles,

wherein said multiple vehicles are associated with a single entity,

wherein the host computer is configured to wirelessly transmit a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer of a target vehicle, wherein the schema comprises a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema,

wherein the web site includes a schema selector to select the schema to be transmitted.

wherein the first web interface comprises a first web page that displays a vehicle diagnostic datum,

wherein the first web page comprises data fields describing: (i) a name of a diagnostic datum; (ii) units corresponding to the diagnostic datum; and (iii) a numerical value corresponding to the diagnostic datum,

wherein the first web page further comprises multiple sets of diagnostic data associated with the single vehicle, and

wherein the host computer is further configured to send an electronic communication

including at least a portion of the operational characteristics of the single vehicle or multiple vehicles.

33. (currently amended) A system for monitoring a set of vehicles, comprising:

a host computer configured to wirelessly transmit a schema,

wherein the schema identifies a subset of a set of operational characteristics that are monitorable by an on-board diagnostic computer of a target vehicle among a set of vehicles, wherein the schema comprises a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema, and

wherein the host computer is further configured to wirelessly receive collected vehicle data of the target vehicle, the collected data including the subset of monitorable operational characteristics identified in the transmitted schema.

34. (previously presented) The system of claim 33, wherein the schema is associated with a predetermined group of vehicles.

35. (previously presented) The system of claim 34, wherein the predetermined group of vehicles have at least one attribute in common.

36. (previously presented) The system of claim 33, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

37. (currently amended) A method of monitoring a set of operational characteristics of a vehicle, comprising:

(a) wirelessly receiving, by a wireless appliance in a vehicle, a schema identifying a subset of a set of operational characteristics that are monitored by an on-board diagnostic computer of the vehicle;

(b) processing the received schema;

(c) collecting from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema;

(d) wirelessly transmitting the collected data; and

(e) wirelessly transmitting data indicative of the vehicle's location,

wherein the schema identifies an address of an operational characteristic for which data is to be collected from the vehicle's on-board diagnostic computer,

wherein the schema comprises an address that describes a location of a diagnostic datum in a computer memory in the vehicle,

wherein the schema comprises a field that describes a time or frequency forat which the

data collecting-occurs, and

wherein the operational characteristics include at least one of the following: diagnostic trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

38. (currently amended) A method of monitoring a set of operational characteristics of a vehicle, comprising:

(a) wirelessly receiving, by a wireless appliance in a vehicle, a schema identifying a subset of a set of operational characteristics that are monitored by an on-board diagnostic computer of the vehicle;

(b) processing the received schema;

(c) collecting from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema; and

(d) wirelessly transmitting the collected data,

wherein the schema comprises a field that describes a time or frequency for the data collecting.

39. (previously presented) The method of claim 38, wherein the schema identifies an

address of an operational characteristic for which data is to be collected from the vehicle's on-board diagnostic computer.

40. (previously presented) The method of claim 38, wherein the schema comprises an address that describes a location of a diagnostic datum in a computer memory in the vehicle.

Cancel claim 41.

42. (previously presented) The method of claim 38, wherein the schema comprises a field that describes a time or frequency at which the data transmitting occurs.

43. (previously presented) The method of claim 38, wherein the schema is an ASCII or binary data file.

44. (previously presented) The method of claim 38, wherein the operational characteristics include at least one of the following: diagnostic trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

45. (previously presented) The method of claim 38, further comprising wirelessly transmitting data indicative of the vehicle's location.

46. (previously presented) The method of claim 38, wherein the vehicle is selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

47. (previously presented) The method of claim 38, wherein collecting data includes repeatedly collecting data from the vehicle's on-board diagnostic computer at times determined by a first schedule.

48. (previously presented) The method of claim 47, wherein the first schedule is specified in the schema.

49. (previously presented) The method of claim 38, wherein transmitting the collected data includes repeatedly transmitting the collected data at times determined by a first schedule.

50. (previously presented) The method of claim 49, wherein the first schedule is specified in the schema.

51. (currently amended) A method of monitoring a set of vehicles, comprising:
- (a) wirelessly receiving, by a host computer, operational characteristics of a set of vehicles;
 - (b) displaying, on a first web interface of a web site, operational characteristics of a single vehicle selected from among said set of vehicles;
 - (c) displaying, on a second web interface of the web site, operational characteristics of multiple vehicles among said set of vehicles; and
 - (d) wirelessly transmitting a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer of a target vehicle, wherein the schema comprises a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema,
- wherein said multiple vehicles are associated with a single entity,
- wherein the web site includes a schema selector to select the schema to be transmitted,
- wherein the first web interface comprises a first web page that displays a vehicle diagnostic datum,
- wherein the first web page comprises data fields describing: (i) a name of a diagnostic datum; (ii) units corresponding to the diagnostic datum; and (iii) a numerical value corresponding to the diagnostic datum,
- wherein the first web page further comprises multiple sets of diagnostic data associated

with the single vehicle,

wherein the web site further comprises a login web page programmed to accept user name and password inputs of a user, and

wherein the web site is configured to determine whether the user is associated with the first or second web interface.

52. (currently amended) A method of monitoring a set of vehicles, comprising:

(a) wirelessly transmitting a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer located in each of a set of vehicles, wherein the schema comprises a field that describes a time or frequency for querying each vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema;

(ab) wirelessly receiving, by a host computer, queried operational characteristics of athe set of vehicles;

(bc) displaying, on a first web interface of a web site, queried operational characteristics of a single vehicle selected from among said set of vehicles; and

(ed) displaying, on a second web interface of the web site, queried operational characteristics of multiple vehicles among said set of vehicles, wherein said multiple vehicles are associated with a single entity.; ~~and~~

~~(d) — wirelessly transmitting a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer of a target vehicle.~~

Cancel claim 53.

54. (previously presented) The method of claim 52, wherein the web site includes a schema selector to select the schema to be transmitted.

55. (previously presented) The method of claim 52, wherein the first web interface comprises a first web page that displays a vehicle diagnostic datum.

56. (previously presented) The method of claim 55, wherein the first web page comprises data fields describing: (i) a name of a diagnostic datum; (ii) units corresponding to the diagnostic datum; and (iii) a numerical value corresponding to the diagnostic datum.

57. (previously presented) The method of claim 56, wherein the first web page further comprises multiple sets of diagnostic data associated with the single vehicle.

58. (previously presented) The method of claim 55, wherein the first web page includes a graphical representation of a set of diagnostic data.

59. (previously presented) The method of claim 52, wherein the web site further comprises a database component.

60. (previously presented) The method of claim 52, wherein the web site further comprises a login web page programmed to accept user name and password inputs of a user.

61. (previously presented) The method of claim 60, wherein the web site is configured to determine whether the user is associated with the first or second web interface.

62. (previously presented) The method of claim 52, wherein the multiple vehicles are each associated with a single user.

63. (previously presented) The method of claim 52, wherein the web site is configured to be displayed on a hand-held device.

64. (previously presented) The method of claim 63, wherein the hand-held device comprises a cellular telephone, computer, or personal digital assistant (PDA).

65. (previously presented) The method of claim 52, further comprising sending an

electronic communication including at least a portion of the operational characteristics of the single vehicle or multiple vehicles.

66. (previously presented) The method of claim 52, further comprising analyzing a location of the single vehicle and displaying the location on at least one map.

67. (previously presented) The method of claim 52, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

68. (previously presented) The method of claim 52, wherein the set of vehicles includes a fleet of vehicles.

69. (currently amended) A method of monitoring a set of vehicles, comprising:

(a) wirelessly transmitting, by a host computer, a schema,

wherein the schema identifies a subset of a set of operational characteristics that are monitorable by an on-board diagnostic computer of a target vehicle among a set of vehicles,

wherein the schema comprises a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer for the subset of operational characteristics identified in

the schema; and

(b) wirelessly receiving collected vehicle data of the target vehicle, the collected data including the subset of monitorable operational characteristics identified in the transmitted schema.

70. (previously presented) The method of claim 69, wherein the schema is associated with a predetermined group of vehicles.

71. (previously presented) The method of claim 70, wherein the predetermined group of vehicles have at least one attribute in common.

72. (previously presented) The method of claim 69, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

73. (currently amended) A programmed apparatus, programmed to execute a method of monitoring a set of operational characteristics of a vehicle, the method comprising:

(a) wirelessly receiving, by a wireless appliance in a vehicle, a schema identifying a subset of a set of operational characteristics that are monitored by an on-board diagnostic computer of the vehicle;

- (b) processing the received schema;
- (c) collecting from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema; and
- (d) wirelessly transmitting the collected data,

wherein the schema comprises a field that describes a time or frequency for the data collecting.

74. (previously presented) The programmed apparatus of claim 73, wherein the schema identifies an address of an operational characteristic for which data is to be collected from the vehicle's on-board diagnostic computer.

75. (previously presented) The programmed apparatus of claim 73, wherein the method further comprises wirelessly transmitting data indicative of the vehicle's location.

76. (previously presented) The programmed apparatus of claim 73, wherein the vehicle is selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

77. (currently amended) A programmed apparatus, programmed to execute a

method of monitoring a set of vehicles, the method comprising:

(a) wirelessly transmitting a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer located in each of a set of vehicles, wherein the schema comprises a field that describes a time or frequency for querying each vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema;

(ab) wirelessly receiving, by a host computer, queried operational characteristics of athe set of vehicles;

(bc) displaying, on a first web interface of a web site, queried operational characteristics of a single vehicle selected from among said set of vehicles; and

(ed) displaying, on a second web interface of the web site, queried operational characteristics of multiple vehicles among said set of vehicles, wherein said multiple vehicles are associated with a single entity.; and

~~(d) — wirelessly transmitting a schema identifying a subset of a set of operational characteristics to be monitored by an on board diagnostic computer of a target vehicle.~~

Cancel claim 78.

79. (previously presented) The programmed apparatus of claim 77, wherein the web site further comprises a login web page programmed to accept user name and password inputs of a user.

80. (previously presented) The programmed apparatus of claim 77, wherein the method further comprises sending an electronic communication including at least a portion of the operational characteristics of the single vehicle or multiple vehicles.

81. (previously presented) The programmed apparatus of claim 80, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

82. (currently amended) A programmed apparatus, programmed to execute a method of monitoring a set of vehicles, the method comprising:

(a) wirelessly transmitting, by a host computer, a schema,

wherein the schema identifies a subset of a set of operational characteristics that are monitorable by an on-board diagnostic computer of a target vehicle among a set of vehicles,

wherein the schema comprises a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema; and

(b) wirelessly receiving collected vehicle data of the target vehicle, the collected data including the subset of monitorable operational characteristics identified in the transmitted schema.

83. (previously presented) The programmed apparatus of claim 82, wherein the schema is associated with a predetermined group of vehicles.

84. (previously presented) The programmed apparatus of claim 82, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

85. (currently amended) A machine-readable medium encoded with a plurality of processor-executable instructions for:

(a) wirelessly receiving, by a wireless appliance in a vehicle, a schema identifying a subset of a set of operational characteristics that are monitored by an on-board diagnostic computer of the vehicle;

(b) processing the received schema;

(c) collecting from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema; and

(d) wirelessly transmitting the collected data,

wherein the schema comprises a field that describes a time or frequency for the data collecting.

86. (previously presented) The machine-readable medium of claim 85, wherein the vehicle is selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

87. (currently amended) A machine-readable medium encoded with a plurality of processor-executable instructions for:

(a) wirelessly transmitting a schema identifying a subset of a set of operational characteristics to be monitored by an on-board diagnostic computer located in each of a set of vehicles, wherein the schema comprises a field that describes a time or frequency for querying each vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema;

(ab) wirelessly receiving, by a host computer, queried operational characteristics of athe set of vehicles;

(bc) displaying, on a first web interface of a web site, queried operational characteristics of a single vehicle selected from among said set of vehicles; and

(ed) displaying, on a second web interface of the web site, queried operational characteristics of multiple vehicles among said set of vehicles, wherein said multiple vehicles are associated with a single entity.; and

~~(d) — wirelessly transmitting a schema identifying a subset of a set of operational~~

~~characteristics to be monitored by an on-board diagnostic computer of a target vehicle.~~

88. (previously presented) The machine-readable medium of claim 87, wherein the set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

89. (currently amended) A machine-readable medium encoded with a plurality of processor-executable instructions for:

(a) wirelessly transmitting, by a host computer, a schema,

wherein the schema identifies a subset of a set of operational characteristics that are monitorable by an on-board diagnostic computer of a target vehicle among a set of vehicles,

wherein the schema comprises a field that describes a time or frequency for querying the vehicle's on-board diagnostic computer for the subset of operational characteristics identified in the schema; and

(b) wirelessly receiving collected vehicle data of the target vehicle, the collected data including the subset of monitorable operational characteristics identified in the transmitted schema.

90. (previously presented) The machine-readable medium of claim 89, wherein the

set of vehicles includes at least one vehicle selected from a group comprising an automobile, truck, wheeled commercial equipment, heavy truck, power sport vehicle, collision repair vehicle, marine vehicle, and recreational vehicle.

Cancel claims 91-97.